

REMARKS/ARGUMENTS

The Office Action mailed July 14, 2003 has been reviewed and carefully considered. Claims 1, 13, and 18 have been amended. Claim 21 is added. Claims 1-3 and 5-21 are pending in this application, with claims 1, 13, and 18 being the only independent claims. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

In the Office Action mailed July 14, 2003, claims 1-3, 7, 11, 17, 18, and 20 stand rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,213,638 (Rattner) in view of U.S. Patent No. 4,894,855 (Kresse), U.S. Patent No. 5,521,957 (Hansen), and FR 2 645 007 (Jarin).

Claim 5 stands rejected under 35 U.S.C. §103 as unpatentable over Rattner, Kresse, Hansen, and Jarin in further view of U.S. Patent No. 3,281,598 (Hollstein).

Claim 6 stands rejected under 35 U.S.C. §103 as unpatentable over Rattner, Kresse, Hansen, and Jarin in further view of U.S. Patent No. 3,784,837 (Holmstrom).

Claims 8, 10, 14, and 15 stand rejected under 35 U.S.C. §103 as unpatentable over Rattner, Kresse, Hansen, and Jarin in further view of U.S. Patent No. 4,987,583 (Travanty).

Claim 9 stands rejected under 35 U.S.C. §103 as unpatentable over Rattner, Kresse, Hansen, Jarin, and Travanty in further view of U.S. Patent No. 5,485,502 (Hinton).

Claim 12 stands rejected under 35 U.S.C. §103 as unpatentable over Rattner, Kresse, Hansen, and Jarin in further view of Hinton.

Claim 13 stands rejected under 35 U.S.C. §103 as unpatentable over Rattner, Kresse, Hansen, Holmstrom, and Jarin in further view of JP 06-105831 (Yamamoto).

Claim 16 stands rejected under 35 U.S.C. §103 as unpatentable over Rattner, Kresse, Hansen, and Jarin in further view of JP 11-285492 (Ninomiya).

Claims 19 stands rejected under 35 U.S.C. §103 as unpatentable over Rattner, Kresse, Hansen, and Jarin in further view of U.S. Patent No. 4,358,856 (Stivender).

In response to the Office Action, independent claim 1 is amended to recite that the supporting device has a first end connected to the holding device and a second end connectable to the room, "wherein the second end is connected to a hinge such that the entire supporting device is rotatable about an axis that is parallel to the plane defined by the supporting members". Support for this limitation is found in Fig. 2 of the specification. As described below, none of the prior art of record show or disclose the claimed arrangement.

Rattner discloses a x-ray device with a C-arm 1 to which an x-ray source 2 and an x-ray detector 3 are connected. As stated in the Office Action, Rattner fails to disclose plane hinges, individually controlled supporting members, or a holding device connectable to a room.

Kresse discloses an x-ray system having support means 5, 6, 7 for respectively supporting individual components of the system. Accordingly, Kresse discloses that the required manipulability of the x-ray is achieved by individual supporting devices that are separately controlled for each component. Even if the hinges of Kresse are considered to be plane hinges, Kresse fails to teach or suggest the claimed limitation of a common holding device supported by a supporting device. Therefore, Kresse fails to teach or suggest anything about a supporting device for supporting a common holding device, as recited in independent claim 1.

Hansen discloses a portable x-ray imaging system in which two arms 21, 22 of a support device are connected to a rotatable collar 20 on a base. The arms 21, 22 are adjustable in a plane. However, the collar 20 rotates about an axis that is perpendicular to the plane of arms

21, 22. The base of Hansen is connectable to an engaging structure 37 in the ceiling. Even if the base were permanently connected to the ceiling, Hansen fails to teach or suggest "wherein the second end is connected to a hinge such that the entire supporting device is rotatable about an axis that is parallel to the plane defined by the supporting members", as recited in independent claim 1 because the axis of rotation of the collar 20 is perpendicular to the plane of arms 21, 22.

Jarin discloses a radiology apparatus with a stand having articulated arms. Each arm includes two sections connected by a pivotable joint. One arm supports the x-ray source and the other arm supports the x-ray detector. The support for the two arms of Jarin includes a hub 13 which can be turned about a horizontal shaft 14. The hub fails to teach or suggest a supporting device having "a plurality of hinged, serially interconnected supporting members, wherein the hinges connecting the supporting members are plane hinges" and therefore fails to teach or suggest anything about a supporting device for supporting a common holding device, as recited in independent claim 1.

In view of the above amendments and remarks, it is respectfully submitted that independent claim 1 is allowable over Rattner, Kresse, Hansen, and Jarin.

Claim 13 is rewritten in independent form. Independent claim 13 recites that the X-ray source is mounted on one holding member and the X-ray detector is mounted on another holding member. Furthermore, independent claim 13 recites that the imaging scale and the size of the examination zone are variable. Support for this limitation is found on page 3, lines 4-6, and page 5, lines 1-2. The Examiner states that Yamamoto discloses that the distance between the source and detector can change and refers to paragraph [0005]. This portion of Yamamoto discloses that the image intensifier 5 of Yamamoto is movable by a driving gear 16 to avoid contact with the patient (the translation of Yamamoto states that the image intensifier 5 avoids

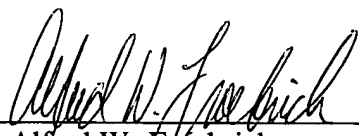
touching the analyte 17, however, reference character 17 is the arm on which the x-ray tube 11 and image intensifier 5 are located. It appears that it is the patient 18 that should not be touched). Accordingly, Yamamoto fails to disclose teach or suggest two holding members for respectively holding the x-ray tube 11 and the image intensifier 5. Yamamoto also fails to teach that the imaging scale and the size of the examination zone are variable, as recited in independent claim 13. Accordingly, it is respectfully submitted that independent claim 13 is allowable over Rattner, Kresse, Hansen, Jarin, and Yamamoto.

Furthermore, new dependent claim 21 recites that each of the first and second holding members are connected to a third holding member and that the first and second holding members are individually controllable the change the distance between the X-ray source and X-ray detector. Support for this limitation is found on Fig. 3 and page 3, lines 1-6 and page 4, line 30 to page 5, line 2. In contrast, Yamamoto discloses that both the X-ray source and the X-ray detector are arranged on a common piece (arm 17) and that the detector (image intensifier 5) is moveable relative to the arm by a drive gear 16. Accordingly, Yamamoto fails to teach or suggest the structure including first, second and third holding members, as recited in claims 21. Accordingly, dependent claim 21 is allowable for these additional reasons.

Claim 18 has been rewritten as an independent claim and includes the limitation "the supporting device is a six-axes flexible arm". The Examiner states that Rattner discloses this limitation and refers to Fig. 1. However, it is respectfully submitted that Rattner discloses a support device having four arms 7 and four hinges 8. There is no teaching or suggestion for a six-axes flexible arm. Accordingly, it is respectfully submitted that independent claim 18 is also allowable over Rattner, Kresse, Hansen, and Jarin.

The application is now deemed to be in condition for allowance and notice to that effect is solicited.

Respectfully submitted,
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